STATE OF GEORGIA

REVISED TMDL IMPLEMENTATION PLAN

Flint River Basin

SEDIMENT (Biota/Habitat Impacted) - 0% REDUCTION REQUIRED

Prepared by
The Georgia Department of Natural Resources
Environmental Protection Division
Atlanta, GA

TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. The overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This Implementation Plan is applicable to the following segments in the Flint River Basin:

Impaired Waterbody	Impaired Stream Location	County	Miles/Area Impacted
Cooleewahee Creek	Piney Woods Branch to Flint River Near Newton	Dougherty/ Baker	16
Avera Creek	Headwaters to Beaver Creek	Crawford	4
Baptist Branch	Downstream Blakely	Early	2
Beaver Creek	Headwaters to Spring Creek	Crawford	11
Heads Creek	D/S Griffin Reservoir to Wildcat Creek	Spalding	2
Lewis Creek	Pike County	Pike	2
Little Whitewater Creek (aka Big Whitewater Creek)	Black Creek to Whitewater Creek	Taylor	6
Middle Creek	Headwaters to Kinchafoonee Creek	Terrell	8
Muckaloochee Creek	Little Muckaloochee Creek to Smithville Pond	Sumter	5
North Branch	Crawford County	Crawford	4

Patsiliga Creek	Headwaters to McCants Mill Pond	Talbot/Taylor	15
Pessell Creek	Headwaters to Kinchafoonee Creek	Sumter	8
Rambulette Creek	Headwaters to Whitewater Creek	Taylor	9
Shoal Creek	Little Shoal Creek to Little Creek	Marion	3
Spring Creek	SR62 near Arlingtyon to Aycocks Creek	Early/Miller	22
Wolf Creek	Headwaters to Ichawaynochawa Creek	Terrell	9

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) and the Georgia Environmental Protection Division (EPD) developed Total Maximum Daily Loads (TMDLs) in 2003 for sediment for streams in the Flint River Basin with biota/habitat-impacted designation on Georgia's 2002 Section 303(d) List. The biota/habitat-impacted designation indicates that studies have shown a modification of the biological community, which is generally caused by habitat loss due to stream sedimentation. The narrative sediment standard is to prevent objectionable conditions that interfere with legitimate water uses, as stated in Georgia's Rules and Regulations for Water Quality Control Chapter 391-3-6-.03(5)(c):

> "All waters shall be free from material related to municipal, industrial, or other discharges which produce turbidity, color, odor or other objectionable conditions which interfere with legitimate water uses."

Sixteen of the listed segments that were found to be impaired due to sediment have shown, based on the current estimated annual loading for the segments, that no reduction in sediment loading is needed to meet water quality standards.

DISCUSSION OF POLLUTANT

Erosion and sedimentation are a major disturbance to stream habitats. Excessive sediment can cause several changes to a stream, such as making the stream shallower and wider, thus affecting the stream's temperature, dissolved oxygen, flow rate and velocity. Excess sediment loads can be detrimental to aquatic life by interfering with photosynthesis, respiration, growth, and reproduction. Sediment can

also carry attached nutrients, pesticides, and metals into streams. High turbidity associated with sediment loads also impairs recreational uses and increases the cost of treating drinking water.

POLLUTANT SOURCES

The current loading on these sixteen segments is below the TMDL. It has been determined that the sediment found in these segments is due to past land use practices and is referred to as “legacy” sediment. It is believed that if sediment loads are maintained at current levels then streams will repair themselves over time.

PLAN FOR IMPLEMENTATION OF TMDL

Although sediment load reductions are not needed for these sixteen segments, compliance with NPDES permits, diligent application of the Erosion and Sedimentation Control Act and local ordinances to land disturbing activities, and application of Best Management Practices (BMPs) to control sediment delivery from other activities will be necessary to meet the TMDL for these segments. Management practices that may be used to help maintain average annual sediment loads at current levels include:

- Compliance with NPDES permit limits and requirements
- Implementation of GFC’s Best Management Practices for Forestry
- Adoption of NRCS Conservation Practices
- Adherence to the Mined Land Use Plan prepared as part of the Surface Mining Permit Application
- Adoption of proper unpaved road maintenance practices
- Implementation of Erosion and Sedimentation Control Plans for land disturbing activities
- Mitigation and prevention of stream bank erosion due to increased streamflow and velocities caused by urban runoff

MONITORING PLAN

The GAEPD has adopted a basin approach to water quality management that divides Georgia’s fourteen major river basins into five groups. This approach provides for additional sampling work to focus on one of the five basin groups each year and offers a five year planning and assessment cycle. The Chattahoochee and Flint River Basins were the subjects of focused monitoring in 2000 and will again receive focused monitoring in 2005.

REFERENCES

Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6-.03, Water Use Classifications and Water Quality Standards, Revised February 2004.

GAEPD, 2003. Total Maximum Daily Load Evaluation for Twenty-eight Stream Segments in the Flint River Basin for Sediment (Biota Impacted). January 2003.